

In the Claims

1-51 (canceled).

52 (previously presented). A transformed plant comprising a polynucleotide encoding a polypeptide comprising SEQ ID NO: 1 or SEQ ID NO: 4.

53 (previously presented). The transformed plant according to claim 52, wherein said transformed plant comprises a polynucleotide encoding a polypeptide comprising SEQ ID NO: 1.

54 (previously presented). The transformed plant according to claim 52, wherein said transformed plant comprises a polynucleotide encoding a polypeptide comprising SEQ ID NO: 4.

55 (canceled).

56 (previously presented). The transformed plant according to claim 52, wherein said transformed plant comprises a polynucleotide encoding a polypeptide consisting of SEQ ID NO: 1.

57-60 (canceled).

61 (previously presented). A method for bioremediation or phytoremediation of sites contaminated with metals comprising: a) identifying a site suitable for bioremediation and containing contaminating heavy metals; b) planting transgenic plants according to claim 52 at said site; c) growing said transgenic plants at said site under conditions that allow for the accumulation of metals that contaminate said site; and d) harvesting said transgenic plants to remove the metal contaminants from the site.

62 (previously presented). The method according to claim 61, wherein said transgenic plant comprises a polynucleotide encoding a polypeptide comprising SEQ ID NO: 1.

63 (previously presented). The method according to claim 61, wherein said transgenic plant comprises a polynucleotide encoding a polypeptide comprising SEQ ID NO: 4.

64 (previously presented). The method according to claim 61, wherein said transgenic plant comprises a polynucleotide encoding a polypeptide consisting of SEQ ID NO: 1.

65-75 (canceled).

76 (previously presented). A method of targeting polypeptides to the cell wall of a plant cell comprising transforming a plant cell with a genetic construct encoding a polypeptide comprising SEQ ID NO: 1 or 3 fused to a heterologous sequence and growing said cell under conditions that allow for the expression of the genetic construct and the translocation of the expressed polypeptide to the cell wall of said cell.

77 (new). The method according to claim 61, wherein the metals that contaminate the site comprise zinc.

78 (new). The method according to claim 61, wherein the metals that contaminate the site comprise copper.